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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/407,544	09/28/1999	RICHARD C WIAKALA	PO9-99-158	2890
46369 7590 09/19/2008 HESLIN ROTHENBERG FARLEY & MESITI P.C. 5 COLUMBIA CIRCLE ALBANY, NY 12203				
EXAMINER PARK, IL WOO				
ART UNIT 2182		PAPER NUMBER		
MAIL DATE 09/19/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/407,544

Applicant(s)

CWIAKALA ET AL.

Examiner

ILWOO PARK

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,6,11-14,18,19,24-28,32,33 and 38-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,6,11-14,18,19,24-28,32,33 and 38-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 5/23/2008 has been entered.
2. Claims 2-4, 7-10, 15-17, 20-23, 29-31, 34-37, and 43-47 are canceled and claims 1, 11, 14, 24, 27, 28, and 38 are amended. Claims 1, 5, 6, 11-14, 18, 19, 24-28, 32, 33, and 38-42 are presented for examination. Maeurer et al and D'Errico were cited in the previous office action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1, 5, 6, 11-14, 18, 19, 24-28, 32, 33, and 38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeurer et al. [US 5,301,323] in view of Bostick et al. [US 5,253,344] and in further view of D'Errico [US 6,434,637 B1].

As to claims 1, 14, 27, and 28, Maeurer et al teach a method of managing input/output (I/O) configurations for at least one logical partition of a computing environment ["ESA/390 and operate under IBM multiple virtual storage (MVS) operating system" in col. 1, lines 24-35], said method comprising:

determining that said I/O configuration is to be adjusted [col. 7, lines 3-4; "TABLE 1" in col. 10-col. 11], wherein said determining comprises using one or more workload goals in making the determination [col. 7, lines 65-67], and the one or more workload goals associated with at least one logical partition of said computing environment [col. 2, lines 50-52], said determining comprising automatically consulting with one or more workload managers of said computing environment in making the determination [col. 4, lines 37-41];

selecting a channel path from a plurality of channel paths to be used in adjusting an I/O configuration of said computing environment, said selecting being based on a plurality of characteristics ["varying system workload" in col. 3, lines 49-50; "some set of priorities, e.g., workload goals or system performance" in col. 3, lines 55-56]; and

dynamically adjusting said I/O configuration using the selected channel path [col. 3, lines 47-65; col. 10, line 41-col. 11, line 52; CHANGE I-III of TABLE 1 in the bottom of col. 9-10], wherein said dynamically adjusting comprises dynamically connecting the selected channel path to a subsystem of said I/O configuration [see "TABLE 1" in col. 10-col. 11], said selected channel path and said subsystem being associated with a workload executing within the at least one logical partition of said computing environment, and wherein the dynamically adjusting provides additional resources [col.

2, lines 59-62; "TABLE 1" in col. 10-col. 11] to said workload, wherein said selected channel path was removed from another workload executing within the at least one logical partition, thereby reducing resources of said another workload ["TABLE 1" in col. 10-col. 11].

Though Maeurer et al disclose the at least one logical partition of the computing environment [ESA/390 MVS operating system], Maeurer et al do not expressly disclose the computing environment including a group of logical partitions. Bostick et al teach a method of managing input/output (I/O) configurations for a group of logical partitions of a computing environment ["dynamically changing I/O configuration" in Abstract, col. 2, lines 17-28, "ESA/390 processing system, using the MVS/ESA operating system ... PR/SM LPAR mode of operation" in col. 3, lines 9-32]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify to include a group of logical partitions in the computing environment in order to increase efficiency of the computing environment being virtualized several computers.

Though the combination of Maeurer et al and Bostick et al teaches the selection of a channel path from a plurality of channel paths, which are resided between a processor and a plurality of I/O controllers [Maeurer et al: fig. 1] for servicing I/O workloads, is based on the plurality of characteristics including a utilization of a channel path [Maeurer et al: col. 8, lines 20-22], the combination does not explicitly disclose the plurality of characteristics further include at least in part of an I/O velocity resulting from selecting the channel path. D'Errico teaches [col. 14, lines 42-65] a selection of a channel path from a plurality of channel paths, which are resided between a processor

and a plurality of I/O controllers [fig. 1] for servicing I/O workloads, is based on a channel path utilization [col. 14, lines 42-65] including at least in part of an I/O velocity ["average response times for particular path" in col. 14, lines 63-65] resulting from selecting the channel path. At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the combination and D'Errico because they both teach a selection of a channel path from a plurality of channel paths based on a path utilization for distributing workload and the D'Errico's teaching of the path utilization further including at least in part of an I/O velocity resulting from selecting the channel path would increase accuracy [D'Errico: col. 4, lines 47-52] in reflecting a unit measure of bandwidth utilization of the combination.

5. As to claims 5, 18, and 32, Maeurer et al teach removing attachment of the selected channel path from a subsystem of said I/O configuration [table 1 in col. 10-col. 11].

6. As to claims 6, 19, and 33, Maeurer et al teach said selecting is further based on at least one of an impact on response time to achieve specific workload goals, contention on a subsystem of said I/O configuration, availability [col. 4, line 68-col. 4, line 2; col. 9, lines 28-35] characteristics of said channel path, and complexity of the resulting I/O configuration.

7. As to claims 11, 24, and 38, Maeurer et al teach determining comprises using measured subsystem performance being within an average target range [col. 10, lines 54-58].

8. As to claims 12, 25, and 39, Maeurer et al teach projecting an impact of the adjustment on one or more subsystems to be effected by the adjustment, prior to said dynamically adjusting [col. 9, lines 22-26; col. 9, lines 41-45; col. 9, line 60-col. 10, line 2].
9. As to claims 13, 26, and 40, Maeurer et al teach dynamically adjusting when the impact is acceptable [col. 9, lines 41-45; col. 9, line 60-col. 10, line 2].
10. As to claim 41, Maeurer et al teach said plurality of channel paths include one or more channel paths that can be added and one or more channel paths that can be deleted [col. 10, lines 41-43], D'Errico teaches the selecting comprises choosing the channel path from the plurality of channel paths which satisfies a best option, the best option taking into consideration the I/O velocity resulting from selecting the channel path [col. 14, lines 63-65], and Maeurer et al teach the selecting concurrently [col. 9, lines 36-41; col. 9, lines 50-53; table 1 in col. 10-col. 11] takes into consideration the one or more channel paths that can be added and the one or more channel paths that can be deleted
11. As to claim 42, Maeurer et al teach moving the selected channel path from one port to another port [see the path P0 is moved from CU 1 to CU 4 in TABLE 1 in col. 10-col. 11].

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ilwoo Park whose telephone number is (571) 272-4155. The examiner can normally be reached on Monday through Friday from 9:00 AM to 5:30

PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ilwoo Park/
Primary Examiner, Art Unit 2182
September 17, 2008